



PTO/SB/08b(05-03)

Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 5

Complete if Known

Application Number	10/660,998
Filing Date	September 12, 2003
First Named Inventor	David J. Ecker
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	IBIS0062-100/DIBIS-0002US.P5

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
SC	S1 ✓	BAKER, et al., "Review and re-analysis of domain-specific 16S primers," J. Microbiol. Methods (2003) 55:541-555.	
	S2 /	BENSON, et al., "Advantages of Thermococcus kodakaraensis (KOD) DNA polymerase for PCR-mass spectrometry based analyses," J. Am. Soc. Mass Spectrom. (2003) 14:601-604.	
	S3 /	BLACK, et al., "Detection of trace levels of tricothecene mycotoxins in human urine by gas chromatography-mass spectrometry," J. Chromatog. (1986) 367:103-115.	
	S4 /	CAMPBELL and HUANG, "Detection of California serogroup Bunyavirus in tissue culture and mosquito pools by PCR," J. Virol. Methods (1996) 57:175-178.	
	S5 /	CHEN, et al., "A universal PCR primer to detect members of the Potyviridae and its use to examine the taxonomic status of several members of the family," Arch. Virol. (2001) 146:757-766.	
	S6 /	CONRAD, et al., "16S-23S rDNA internal transcribed spacer sequences for analysis of the phylogenetic relationships among species of the genus Fusobacterium," Intl. J. System. Evol. Microbiol. (2002) 52:493-499.	
	S7 /	DASEN, et al., "Classification and identification of Propionibacteria based on ribosomal RNA genes and PCR," System. Appl. Microbiol. (1998) 21:251-259.	
	S8 /	DEFORCE, et al., "Characterization of DNA oligonucleotides by coupling of capillary zone electrophoresis to electrospray ionization Q-TOF mass spectrometry," Anal. Chem. (1998) 70:3060-3068.	
	S9 ✓	DEMASURE, et al., "A set of universal primers for amplification of polymorphic non-coding regions of mitochondrial and chloroplast DNA in plants," Mol. Ecol. (1995) 4:129-131.	
	S10 /	FLORA, et al., "Dual-micro-ESI source for precise mass determination on a quadrupole time-of-flight mass spectrometer for genomic and proteomic applications," Anal. Bioanal. Chem. (2002) 373:538-548.	
	S11 /	FOX, et al., "Identification of Brucella by ribosomal-spacer-region PCR and differentiation of Brucella canis from other Brucella spp. pathogenic for humans by carbohydrate profiles," J. Clin. Microbiol. (1998) 36:3217-3222.	

Examiner
Signature

/Suryaprabha Chunduru/

Date
Considered

07/31/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

2

of

5

Complete if Known

Application Number	10/660,998
Filing Date	September 12, 2003
First Named Inventor	David J. Ecker
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	IBIS0062-100/DIBIS-0002US.P5

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
SC	S12	FOX et al., "Report of the 'Bioterrorism Workshop'", J. Microbiol. Methods (2002) 51:247-254.	
	S13	GRIFFEY and GREIG, "Detection of base pair mismatches in duplex DNA and RNA oligonucleotides using electrospray mass spectrometry," SPIE (1997) 2985:82-86.	
	S14	GRIFFIN, et al., "Direct genetic analysis by matrix-assisted laser desorption/ionization mass spectrometry," proc. Natl. Acad. Sci. USA (1999) 96:6301-6306.	
	S15	HANNIS and MUDDIMAN, "Accurate characterization for the tyrosine hydroxylase forensic allele 9.3 through development of electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry," Rapid. Comm. Mass Spectrom. (1999) 13:954-962.	
	S16	HANNIS and MUDDIMAN, "Genotyping short tandem repeats using flow injection and electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry," Rapid. Comm. Mass Spectrom. (2001) 15:348-350.	
	S17	HANNIS and MUDDIMAN, "Detection of double-stranded PCR amplicons at the attomole level electrosprayed from low nanomolar solutions using FT-ICR mass spectrometry," Fresenius J. Anal. Chem. (2001) 369:248-251.	
	S18	HAYASHI, et al., "Phylogenetic analysis of the human gut microbiota using 16S rDNA clone libraries and strictly anaerobic culture based methods," Microbiol. Immunol. (2002) 46:535-548.	
	S19	HOFFMANN, et al., "Universal primer set for the full-length amplification of all Influenza A viruses," Arch. Virol. (2001) 146:2275-2289.	
	S20	ISOLA, et al., "MALDI-TOF mass spectrometric method for detection of hybridized DNA oligomers," Anal. Chem. (2001) 73:2126-2131.	
	S21	JANKOWSKI and SOLER, "Mass spectrometry of DNA: Part 2' Quantitative estimation of base composition," Eur. J. Mass Spectrom. Biochem. Med. Environ. Res. (1980) 1:45-52.	
	S22	KAGEYAMA and BENNO, "Rapid detection of human fecal Eubacterium species and related genera by tested PCR method," Microbiol. Immunol. (2001) 45:315-318.	

Examiner
Signature

/Suryaprabha Chunduru/

Date
Considered

07/31/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

3

of

5

Complete if Known

Application Number	10/660,998
Filing Date	September 12, 2003
First Named Inventor	David J. Ecker
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	IBIS0062-100/DIBIS-0002US.P5

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
SC	S23	LITTLE, et al., "Rapid sequencing of oligonucleotides by high-resolution mass spectrometry," J. Am. Chem. Soc. (1994) 116:4893-4897.	
	S24	LIU, et al., "Improving the microdialysis procedure for electrospray ionization mass spectrometry of biological samples," J. Mass Spectrom. (1997) 32:425-431.	
	S25	MANGRUM, et al., "Solution composition and thermal denaturation for the production of single-stranded PCR amplicons: piperidine-induced destabilization of the DNA duplex," J. Am. Soc. Mass Spectrom. (2002) 13:232-240.	
	S26	MCCABE, et al., "Bacterial species identification after DNA amplification with a universal primer pair," Mol. Genet. Metab. (1999) 66:205-211.	
	S27	MEIYU, et al., "Detection of flaviviruses by reverse transcriptase-polymerase chain reaction with the universal primer set," Microbiol. Immunol. (1997) 41:209-213.	
	S28	MORICCA, et al., "Detection of Fusarium oxysporum f.sp. vasinfectum in cotton tissue by polymerase chain reaction," Plant Pathol. (1998) 47:486-494.	
	S29	MUDDIMAN, et al., "Characterization of PCR products from Bacilli using electrospray ionization FTICR mass spectrometry," Anal Chem. (1996) 68:3705-3712.	
	S30	NAGPAL, et al., "Utility of 16S-23S rRNA spacer region methodology: how similar are interspace regions within a genome and between strains for closely related organisms?," J. Microbiol. Methods (1998) 33:211-219.	
	S31	NULL, et al., "Preparation of single-stranded PCR products for electrospray ionization mass spectrometry using the DNA repair enzyme lambda exonuclease," Analyst (2000) 125:619-626.	
	S32	NULL, et al., "Evaluation of sample preparation techniques for mass measurements of PCR products using ESI-FT-ICR mass spectrometry," Am Soc. Mass Spectrom. (2002) 13:338-344.	

Examiner
Signature

/Suryaprabha Chunduru/

Date
Considered

07/31/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.88. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

4

of

5

Complete if Known

Application Number	10/660,998
Filing Date	September 12, 2003
First Named Inventor	David J. Ecker
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	IBIS0062-100/DIBIS-0002US.P5

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
SC	S33	NULL and MUDDIMAN, "Determination of a correction to improve mass measurement accuracy of isotopically unresolved polymerase chain reaction amplicons by electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry," <i>Rapid Comm. Mass Spectrom.</i> (2003) 17:1714-1722.	
	S34	NULL and MUDDIMAN, "Perspectives on the use of electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry for short tandem repeat genotyping in the post genome era," <i>J. Mass Spectrom.</i> (2001) 36:589-606.	
	S35	NULL, et al., "Genotyping of simple and compound short tandem repeat loci using electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry," <i>Anal. Chem.</i> (2001) 73:4514-4521.	
	S36	NULL, et al., "Implications of hydrophobicity and free energy of solvation for characterization of nucleic acids by electrospray ionization mass spectrometry," <i>Anal. Chem.</i> (2003) 75:1331-1339.	
	S37	PENG, et al., "Rapid detection of Shigella species in environmental sewage by an immunocapture PCR with universal primers," <i>App. Environ. Microbiol.</i> (2002) 68:2580-2583.	
	S38	POMERANTZ, et al., "Determination of oligonucleotide composition from mass spectrometrically measured molecular weight," <i>J. Am. Soc. Mass Spectrom.</i> (1993) 4:204-209.	
	S39	ROSS, et al., "Discrimination of single-nucleotide polymorphisms in human DNA using peptide nucleic acid probes detected by MALDI-TOF mass spectrometry," <i>Anal. Chem.</i> (1997) 69:4197-4202.	
	S40	SCARAMOZZINO, et al., "Comparison of Flavivirus universal primer pairs and development of a rapid, highly sensitive heminested reverse transcription-PCR assay for detection of flaviviruses targeted to a conserved region of the NS5 gene sequences," <i>J. Clin. Microbiol.</i> (2001) 39:1922-1927.	
	S41	SHAVER, et al., "Restriction fragment length polymorphism of rRNA operons for discrimination and intergenic spacer sequences for cataloging of <i>Bacillus subtilis</i> sub-groups," <i>J. Microbiol. Methods</i> (2002) 50:215-223.	
	S42	SRINIVASAN, et al., "Matrix-assisted laser desorption/ionization time-of-flight mass spectrometry as a rapid screening method to detect mutations causing Tay-Sachs disease," <i>Rapid Comm. Mass Spectrom.</i> (1997) 11:1144-1150.	
	S43	STEFFENS and ROY, "Sequence analysis of mitochondrial DNA hypervariable regions using infrared fluorescence detection," <i>Bio/Techniques</i> (1998) 24:1044-1046.	

Examiner
Signature

/Suryaprabha Chunduru/

Date
Considered

07/31/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 5 of 5

Complete if Known

Application Number	10/660,998
Filing Date	September 11, 2003
First Named Inventor	David J. Ecker
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	IBIS0062-100/DIBIS-0002US.P5

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
SC	S44	WUNSCHER, et al., "Mass spectrometric characterization of DNA for molecular biological applications: advances using MALDI and ESI," Adv. Mass Spectrom., Vol. 14, Karjalainen, et al., (eds.) 1998, Elsevier, Amsterdam.	

Examiner Signature	/Suryaprabha Chunduru/	Date Considered	07/31/2006
-----------------------	------------------------	--------------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	2	of	2
-------	---	----	---

Application Number	10/660,998
Filing Date	September 12, 2003
First Named Inventor	David J. Ecker
Art Unit	To Be Determined
Examiner Name	To Be Determined
Attorney Docket Number	IBIS0062-100 (DIBIS-0002US.P5)

[illegible]

Examiner Signature	/Suryaprabha Chunduru/	Date Considered	07/31/2006
-----------------------	------------------------	--------------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 808. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.